

PATENT
USSN 10/044,692
TTC Docket 002640US
Geron Docket 018/213c

CLAIM AMENDMENTS

1. *(Previously presented)* A composition comprising a recombinant nucleic acid vector or plasmid that encodes:

- a) human telomerase reverse transcriptase (hTERT) protein (SEQ. ID NO:2); or
- b) a polypeptide fragment of SEQ. ID NO:2 consisting of at least 20 contiguous amino acids which is immunogenic for a specific response against hTERT (SEQ. ID NO:2).

2 to 9. **CANCELLED**

10. *(Previously presented)* The composition of claim 1, further comprising an adjuvant.

11 to 18. **CANCELLED**

19. *(Previously presented)* The composition of claim 1, comprising an amount of said nucleic acid vector or plasmid that encodes a polypeptide effective for eliciting an immunological response specific for hTERT protein (SEQ. ID NO:2) in a mammalian subject.

20. *(Original)* The composition of claim 1, packaged in a container along with an indication of how the composition is to be administered.

21. *(Previously presented)* A recombinant nucleic acid vector or plasmid that encodes hTERT (SEQ. ID NO:2) or a fragment of SEQ. ID NO:2 of at least 10 contiguous amino acids, wherein said fragment is immunogenic for a specific response against hTERT (SEQ. ID NO:2).

22. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid vector or plasmid encodes full-length hTERT protein (SEQ. ID NO:2).

23. *(Previously presented)* The nucleic acid vector or plasmid of claim 21, which encodes a fragment of SEQ. ID NO:2 of at least 20 contiguous amino acids.

24. *(Previously presented)* The nucleic acid vector or plasmid of claim 21, which encodes a fragment of SEQ. ID NO:2 of at least 50 contiguous amino acids.

PATENT
USSN 10/044,692
TTC Docket 002640US
Geron Docket 018/213c

25. *(Previously presented)* A composition comprising an isolated nucleic acid that encodes a chimeric protein consisting of an immunogenic fragment of SEQ. ID NO:2 fused to another protein that enhances the immune response to said fragment of SEQ. ID NO:2.
26. *(Previously presented)* The nucleic acid composition of claim 25, wherein the other protein is keyhole limpet hemocyanin (KLH).
27. *(Previously presented)* The composition of claim 1, wherein the nucleic acid vector or plasmid is DNA.
28. *(Previously presented)* The composition of claim 1, wherein the nucleic acid vector or plasmid is RNA.
29. *(Previously presented)* The composition of claim 1, wherein said hTERT or said fragment is encoded in a plasmid.
30. *(Previously presented)* The composition of claim 1, wherein said hTERT or said fragment is encoded in a viral vector.
31. *(Previously presented)* The composition of claim 1, wherein said hTERT or said fragment is encoded in an adenovirus vector.
32. *(Previously presented)* The composition of claim 1, wherein said hTERT or said fragment is encoded in a herpes virus or Epstein Barr Virus vector.
33. *(Previously presented)* A recombinant nucleic acid in which an encoding region is operably linked to a promoter that controls expression of said encoding region,
wherein said encoding region encodes hTERT protein (SEQ. ID NO:2) or a fragment of SEQ. ID NO:2 of at least 20 contiguous amino acids; and
wherein said fragment is immunogenic for a specific response against hTERT (SEQ. ID NO:2).

34 to 38. CANCELLED

PATENT
USSN 10/044,692
TTC Docket 002640US
Geron Docket 018/213c

39. *(Previously presented)* A recombinant nucleic acid vector or plasmid that encodes hTERT (SEQ. ID NO:2), or a fragment of SEQ. ID NO:2, wherein said vector or plasmid comprises at least about 50 consecutive bases of SEQ. ID NO:1;
and wherein said fragment is immunogenic for a specific response against hTERT (SEQ. ID NO:2).
40. *(Previously presented)* The nucleic acid vector or plasmid of claim 39, wherein said fragment is encoded by at least about 100 consecutive bases of SEQ. ID NO:1.
41. *(Previously presented)* An isolated recombinant nucleic acid comprising an encoding region operably linked to a promoter that controls expression of said encoding region,
wherein said encoding region encodes hTERT protein (SEQ. ID NO:2) or a fragment of SEQ. ID NO:2, wherein said encoding region comprises at least about 50 consecutive bases of SEQ. ID NO:1; and
wherein said fragment is immunogenic for a specific response against hTERT (SEQ. ID NO:2).
42. *(Previously presented)* The nucleic acid of claim 41, wherein said fragment is encoded by at least about 200 consecutive bases of SEQ. ID NO:1.
43. *(Previously presented)* An isolated recombinant nucleic acid that encodes a fragment of SEQ. ID NO:2, wherein said fragment consists of at least 50 consecutive amino acids, and wherein said fragment does not have telomerase catalytic activity when cotranslated with telomerase RNA component, but wherein said fragment is immunogenic for a specific response against hTERT (SEQ. ID NO:2).
- 44 to 46. CANCELLED.
47. *(Previously presented)* The nucleic acid of claim 43, further comprising a promoter to control expression of said polypeptide.
48. *(Previously presented)* The nucleic acid of claim 43, contained in a plasmid vector.
49. *(Previously presented)* The nucleic acid of claim 43, contained in a viral vector.
50. *(Previously presented)* The nucleic acid of claim 43, contained in an adenovirus vector, a herpes virus vector, or Epstein Barr Virus vector.

PATENT
USSN 10/044,692
TTC Docket 002640US
Geron Docket 018/213c

51. *(Previously presented)* The composition of claim 25, wherein said nucleic acid further comprises a promoter to control expression of said chimeric protein.
52. *(Previously presented)* The composition of claim 25, wherein the nucleic acid is contained in a plasmid vector.
53. *(Previously presented)* The composition of claim 25, wherein the nucleic acid is contained in a viral vector.
54. *(Previously presented)* The composition of claim 25, wherein the nucleic acid is contained in an adenovirus vector, a herpes virus vector, or Epstein Barr Virus vector.
55. *(Previously presented)* The composition of claim 30, wherein the nucleic acid also contains viral sequences for replication and packaging of the vector.
56. *(Previously presented)* The nucleic acid vector or plasmid of claim 21, wherein codons in said encoding region have been altered to increase the rate of expression of said hTERT or said fragment.
57. *(Previously presented)* A composition comprising a recombinant RNA that encodes a polypeptide fragment of SEQ. ID NO:2 consisting of at least 20 contiguous amino acids, which is immunogenic for a specific response against hTERT (SEQ. ID NO:2).

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58. *(New)* A recombinant nucleic acid in which an encoding region is operably linked to an exogenous promoter that controls expression of said encoding region in a mammalian cell, wherein said encoding region encodes a polypeptide that consists of hTERT protein (SEQ. ID NO:2) or a fragment of SEQ. ID NO:2 of at least 10 contiguous amino acids.
59. *(New)* The recombinant nucleic acid of claim 58, wherein the encoded polypeptide consists of a fragment of SEQ. ID NO:2 of at least 20 contiguous amino acids.

PATENT
USSN 10/044,692
TTC Docket 002640US
Geron Docket 018/213c

60. (New) The recombinant nucleic acid of claim 58, wherein the encoded polypeptide consists of a fragment of SEQ. ID NO:2 of at least 50 contiguous amino acids.
61. (New) The recombinant nucleic acid of claim 58, which is immunogenic for a specific response against hTERT (SEQ. ID NO:2).
62. (New) A composition comprising a nucleic acid vector or plasmid that encodes a polypeptide consisting of hTERT protein (SEQ. ID NO:2), or a fragment of SEQ. ID NO:2 of at least 10 contiguous amino acids, wherein the composition is immunogenic for a specific response against hTERT (SEQ. ID NO:2).
63. (New) The composition of claim 62, wherein the encoded polypeptide consists of a fragment of SEQ. ID NO:2 of at least 20 contiguous amino acids.
64. (New) The composition of claim 62, wherein the encoded polypeptide consists of a fragment of SEQ. ID NO:2 of at least 50 contiguous amino acids.
65. (New) The recombinant nucleic acid of claim 58, contained in a plasmid.
66. (New) The recombinant nucleic acid of claim 58, contained in a viral vector.
67. (New) The recombinant nucleic acid of claim 58, contained in an adenovirus vector.
68. (New) The recombinant nucleic acid of claim 58, contained in a herpes virus or Epstein Barr Virus vector.
69. (New) The recombinant nucleic acid of claim 58, which also contains viral sequences for replication and packaging of the vector.
70. (New) The recombinant nucleic acid of claim 58, wherein codons in said encoding region have been altered to increase the rate of peptide expression of said hTERT or said fragment.